



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,541	10/14/1999	MASARU FUSE	01413/FP-045	7574

7590 03/21/2002

WENDEROTH LIND & PONACK LLP
2033 K STREET N W
SUITE 800
WASHINGTON, DC 20006

EXAMINER

NEGASH, KINFE MICHAEL

ART UNIT PAPER NUMBER

2633

DATE MAILED: 03/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/417,541

Applicant(s)

FUSE, MASARU

Examiner

Kinfe-Michael Negash

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8,9,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 3,6,7,10,13 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Bodell(U.S. Patent No. 4,768,186).

Bodell in Fig. 1 shows a transmission system comprising a multiplexer(6); an FM modulator(7); an optical transmitter(8); an optical receiver(9); and an FM demodualtor(11). Thus, claims 1 and 8 are anticipated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2633

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujito et al., (U.S. Patent No. 4,722,081) combined with Bodell (U.S. Patent No. 4,768,186).

Fujito et al., in Fig. 1 show a transmission system comprising a multiplexer(2); an FM modulator(1); an optical transmitter(5); an optical receiver(21); and an FM demodulator(25). The difference between Fujito et al., and the claims is that Fujito et al., multiplexes the output of a plurality of FM modulators as opposed to using a single FM modulator to modulate the output of a frequency division multiplexer. However, Bodell in Fig. 1 teaches the technique of frequency modulating an output of a frequency division multiplexer. Thus, since the technique of frequency modulating an output of a frequency division multiplexer is extremely well known in the art as demonstrated by Bodell, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to alternatively use a single FM modulator at the output of the multiplexer(2) in Fujito in order to reduce the number of modulators and thereby cost. Thus, claims 1 and 8 are rejected.

Art Unit: 2633

7. Claims 2,4-5, 9, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodell (U.S. Patent No. 4,768,186) combined with LaGasse(U.S. Patent No. 5,373,383).

As to claims 2,4,9, and 11, Bodell discloses the claimed invention except for a transmitter comprising a light source for outputting an unmodulated light and Mach-Zehnder modulator. LaGasse in Fig. 1 teaches an optical transmitter comprising a light source(12) for outputting an unmodulated light and Mach-Zihnder modulator(16). Hence, since the use of transmitters comprising a light source for outputting an unmodulated light and Mach-Zihnder modulator are extremely well known in the art as demonstrated by LaGasse, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to alternatively use the claimed transmitter taught by LaGasse in the system of Bodell in order to transmit the signals.

Regarding claims 5 and 12, Bodell discloses the claimed invention except for an optical delay device. Nevertheless, since the use of an optical delay device in the environment of the claims is will known in the art , it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an optical delay device in the combination in order to control the propagation delay.

Allowable Subject Matter

8. Claims 3,6-7,10, and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2633

9. The following is a statement of reasons for the indication of allowable subject matter: The art of record taken separately or in combination fail to teach the limitations of the claims.

Conclusion

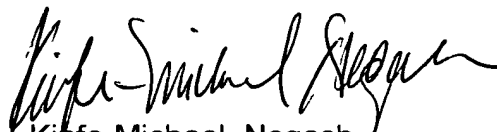
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art of record are cited for their teachings of some features of the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kinfe-Michael Negash whose telephone number is (703)305-4932. The examiner can normally be reached on 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703)305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Art Unit: 2633

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

A handwritten signature in black ink, appearing to read 'Kinfe-Michael Negash', written in a cursive style.

Kinfe-Michael Negash
Primary Examiner
Art Unit 2633

KN
March 14, 2002